

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
7 August 2003 (07.08.2003)

PCT

(10) International Publication Number
WO 03/064669 A1

(51) International Patent Classification: C12P 13/04,
13/08, 13/10, 13/24

(21) International Application Number: PCT/EP02/01070

(22) International Filing Date: 1 February 2002 (01.02.2002)

(25) Filing Language: English

(26) Publication Language: English

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(81) Designated States (national): AE, AG, AI, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG,
SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VN, YU, ZA, ZM, ZW.

(84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR,
GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent
(BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
NE, SN, TD, TG).

Published:

— with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: ENZYMATIC SYNTHESIS OF N^α-ACYL-L-ARGININE ESTERS

(57) Abstract: The invention relates to a process for preparing a Na-acyl-L-arginine ester, derived from fatty acids and esterified dibasic amino acids, according to the following formula (I), where: X- is Br-, Cl-, or HSO₄- R1: is linear alkyl chain from an saturated fatty acid, or hydroxy-acid from 8 to 14 atoms of carbon bonded to the α- amino acid group through amidic bond. R2: is a linear or branched alkyl chain from 1 to 18 carbon atoms or aromatic. R3: is formula (II), where n can be from 0 to 4, from the appropriate organic acid and alcohol. The process is catalyzed by a hydrolase, more in particular a protease, the protease papain from Carica papaya being highly suitable. In order for the esterification reaction to run as wanted, the process is performed in a low-water-content organic medium. When the highly suitable papain from Carica papaya is used, a water activity of between 0,03 and 0,5 is selected.

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